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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/569,511 | 02/27/2006 | Masayuki Tsuchiya | 0607 | 7934 |
| 2119 | 7590 | 03/15/2007 | EXAMINER | |
| RONALD E. GREIGG | | | LIN, KUANG Y | |
| GREIGG & GREIGG P.L.L.C. | | | ART UNIT | PAPER NUMBER |
| 1423 POWHATAN STREET, UNIT ONE | | | 1725 | |
| ALEXANDRIA, VA 22314 | | | | |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
| 3 MONTHS | | 03/15/2007 | PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

| | | |
|-----------------|--------------------------|--|
| Application No. | 10/569,511 | |
| Examiner | Art Unit Kuang Y. Lin | |
| | 1725 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 27 February 2006.
2a) This action is FINAL. 2b) This action is non-final.
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 4-9 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 4-9 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/27/06.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) Notice of Informal Patent Application
6) Other: _____.

1. Claims 6-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, line 3, it recites that the injected material is covered on the circumference thereof by a steel sheet 0.2-0.5 mm thick. However, it is the material before the injection, rather than thereafter, that is covered by the steel sheet. The steel sheet is retained in the space around the projection 52 (see figure 2).

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 4 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 6,053,997 to Nakamura et al.

From figures 1 and 3 of Nakamura et al. the gate 7 is made of separate piece located at the entrance of the mold cavity. Further, even if it is not made of separate piece, a given structure is integral does not preclude its consisting of various elements, *Nerwin v. Erlichman*, 168 USPQ 177. Furthermore, the use of a one piece construction, instead of separate pieces, would be merely a matter of obvious engineering choice, *In re Larson*, 144 USPQ 347.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,053,997 to Nakamura et al. and further in view of US 5,730,201 to Rollin et al.

Nakamura et al. substantially show the invention as claimed except that they do not show to provide a projection portion formed around the gate hole. However, Rollin et al. show to provide a projection around a recess 44 at the gate for accommodating the oxide skin (see col. 16, line 25 +). It would have been obvious to further provide the gate 7 of Nakamura et al. with the projection and recess configuration of Rollin et al. in view of the advantage.

7. Claims 6 and 8 insofar as definite are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 3-221,253.

JP '253 substantially shows the invention as claimed except that it uses copper foil, aluminum foil, or other kind of metallic foil for covering the aluminum alloy (see, for example, upper left col. line 1+ and upper right col. of page 352, line 7+, upper left col. line 6+ and lower left col. line 16+, and figures 1 and 6). However, the type of foil used depends on the alloy to be covered and would have been obvious to those of ordinary skill in the casting art to select an appropriate type of foil through routine experimentation.

8. Claims 7 and 9 insofar as definite are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 3-221,253 as applied to claim 6 above, and further in view of US 6,053,997 to Nakamura et al. and US 5,730,201 to Rollin et al.

Rollin et al. show to provide a projection around a recess 44 at the gate for accommodating the oxide skin (see col. 16, line 25 +). It would have been obvious to further provide JP '253 with the gate 7 of Nakamura et al. and having the projection and recess configuration of Rollin et al. in view of the advantage.

9. JP 64-83,358 is cited to further show the state of the art.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuang Y. Lin whose telephone number is 571-272-1179. The examiner can normally be reached on Monday-Friday, 10:00-6:30.,

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Kuang Y. Lin
Primary Examiner
Art Unit 1725

3-12-07